

### **REMARKS**

In response to the Non-Final Office Action mailed September 4, 2008 (hereafter "Office Action"), claim 1, 4, 22 and 25 have been amended, and claims 17 and 38 have been cancelled without prejudice or disclaimer. Support for the instant amendments may be found throughout the embodiments disclosed in the originally filed Specification. No new matter has been added. Accordingly, claims 1-16, 18-20, 22-17 and 39-41 are pending.

Reconsideration and allowance based on the following remarks are respectfully requested.

As a preliminary matter, Applicant wishes to thank the Examiner for the indication of allowable subject matter in claims 13-15 and 34-36.

#### **Rejections under 35 U.S.C. §§ 102 and 103**

A. Claims 1-12, 16-19, 22-33 and 37-40 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0048458 to Mieher ("Mieher"). Applicant traverses this rejection for at least the following reasons.

Applicant submits that the cited portions of Mieher do not teach or disclose a method for determining at least one process parameter in a device manufacturing process comprising, *inter alia*, determining a mathematical model by using said known values of said at least one process parameter and by employing a multi-variant regression technique on said calibration spectral measurement data, said mathematical model comprising a number of regression coefficients; obtaining spectral measurement data from at least one marker structure provided on an object, said at least one marker structure being made using an unknown value of said at least one process parameter; and comparing the obtained spectral measurement data with the calibration spectral measurement data to determine the unknown value of said at least one process parameter for said object from said obtained spectral measurement data by employing said regression coefficients of said mathematical model, as recited in claim 1.

The Office Action relies upon paragraph [0080] of Mieher to allegedly teach employing a regression technique on the calibration measurement data. [See Office Action, pg. 3]. However, the cited portions of Mieher use regression for a different purpose. For example, Mieher discloses that ***“the scatterometry data (e.g., measured spectra) is interpreted into shape parameter information. This may be accomplished using iterative regression techniques*** and/or by library matching techniques such as those previously described, i.e., match the measured spectra with libraries that link profiles with spectra.” [Mieher, ¶ 80 (emphasis added)].

Indeed, “... unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations ***arranged or combined in the same way as recited in the claim***, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.” *Net Money/IN, Inc. v. VeriSign, Inc. et al.*, Slip Op. pg. 17-18 (Fed. Cir., October 20, 2008) (emphasis added).

Therefore, each and every element of claim 1 has not been shown to be anticipated for at least the reason that the Office Action has not shown how the cited portions of Mieher allegedly teach “comparing the obtained spectral measurement data with the calibration spectral measurement data to determine the unknown value of said at least one process parameter for said object from said obtained spectral measurement data *by employing said regression coefficients of said mathematical model.*”

In addition, each and every element of claim 22 has not been shown for reasons that should be apparent from the discussion of claim 1 above. Applicant therefore, submits that the cited portions of Mieher do not teach or disclose each and every feature of claim 22, either.

Therefore, Applicant respectfully submits that a case of anticipation has not been established and that the cited portions of Mieher fail to disclose or teach each and every feature recited in claims 1 and 22. Claims 2-12, 16-19, 23-33 and 37-40 depend from claims 1 and 22, respectively, and are therefore, patentable for at least the same reasons provided above related to claims 1 and 22 and for the additional features recited therein. Thus, Applicant respectfully requests that the rejection of

claims 1-12, 16-19, 21-33 and 37-40 under 35 U.S.C. § 102(e) over Mieher should be withdrawn and the claims be allowed.

B. Claims 21 and 41 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mieher in view of U.S. Patent Application No. 6,917,901 to Bowley, Jr et al. ("Bowley"). Applicant traverses this rejection for at least the following reasons.

As discussed above, the cited portions of Mieher do not teach or disclose each and every feature of claims 1 and 22.

Further, Applicant submits that the cited portions of Bowley do not overcome the deficiencies of Mieher noted above. For example, the Office Action relies upon Bowley to allegedly show a support structure configured to support a patterning structure and a substrate table configured to hold the substrate. [See Office Action, pg. 6].

Therefore, Applicant respectfully submits that a *prima facie* case of obvious has not been established and that the cited portions of Mieher, Bowley, or a proper combination thereof, fail to disclose or teach each and every feature recited in claims 1 and 22. Claims 21 and 42 depend from claims 1 and 22, respectively, and are therefore, patentable for at least the same reasons provided above related to claims 1 and 22 and for the additional features recited therein. Thus, Applicant respectfully requests that the rejection of claims 21 and 41 under 35 U.S.C. § 103(a) over Mieher in view of Bowley should be withdrawn and the claims be allowed.


### **Conclusion**

All rejections have been addressed. It is respectfully submitted that the present application is in condition for allowance, and a notice to that effect is earnestly solicited. Should there be any questions or concerns regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

By:   
ROBERT C. PEREZ  
Reg. No. 39328  
Tel. No. 703.770.7759  
Fax No. 703.770.7901

Date: December 12, 2008  
P.O. Box 10500  
McLean, VA 22102  
(703) 770-7900